SEQUENCE LISTING

```
<110> Hadasit Medical Research Services & Development Ltd
```

```
<120> Novel amino acid sequences, DNA encoding the amino acid sequences, antibodies directed against such sequences and the different uses thereof
```

```
<130> 6433/W0/99
```

<140>

<141>

<150> 60/107,213

<151> 1998-11-05

<160> 8

<170> PatentIn Ver. 2.1

<210> 1

<211> 22

<212> PRT

<213> Mycobacterium tuberculosis

<400> 1

Gly Pro Lys Gly Arg Asn Val Val Leu Glu Lys Lys Trp Gly Ala Pro 1 5 10 15

Thr Ile Thr Asn Asp Gly

20

<210> 2

<211> 16

<212> PRT

<213> Mycobacterium tuberculosis

<400> 2

Gly Pro Lys Gly Arg Asn Val Val Leu Glu Lys-Lys Trp Gly Ala Pro 1 5 10 15

<210> 3

<211> 16

<212> PRT

<213> Mycobacterium tuberculosis

<400> 3

```
Val Val Leu Glu Lys Lys Trp Gly Ala Pro Thr Ile Thr Asn Asp Gly
                  5
                                      10
<210> 4
<211> 20
<212> PRT
<213> Human
<400> 4
Thr Val Ile Ile Glu Gln Ser Trp Gly Ser Pro Lys Val Thr Lys Asp
                  5
                                      10
                                                           15
Gly Val Thr Val
<210> 5
<211> 67
<212> DNA
<213> Human
<400> 5
gccgccatgg gaccaaaggg acgcaacgtg gtactagaga agaaatgggg cgcgccgtag 60
ctcgaga
                                                                    67
<210> 6
<211> 540
<212> PRT
<213> Mycobacterium tuberculosis
<400> 6
Met Ala Lys Thr Ile Ala Tyr Asp Glu Glu Ala Arg Arg Gly Leu Glu
  1
                  5
                                      10
                                                           15
Arg Gly Leu Asn Ala Leu Ala Asp Ala Val Lys Val Thr Leu Gly Pro
             20
                                 25
                                                       30
Lys Gly Arg Asn Val Val Leu Glu Lys Lys Trp Gly Ala Pro Thr Ile
         35
                              40
                                                  45
Thr Asn Asp Gly Val Ser Ile Ala Lys Glu Ile Glu Leu Glu Asp Pro
     50
                         55
                                              60
Tyr Glu Lys Ile Gly Ala Glu Leu Val Lys Glu Val Ala Lys Lys Thr
 65
                     70
                                          75
                                                               80
```

- Asp Asp Val Ala Gly Asp Gly Thr Thr Thr Ala Thr Val Leu Ala Gln 85 90 95
- Ala Leu Val Arg Glu Gly Leu Arg Asn Val Ala Ala Gly Ala Asn Pro 100 105 110
- Leu Gly Leu Lys Arg Gly Ile Glu Lys Ala Val Glu Lys Val Thr Glu
 115 120 125
- Thr Leu Leu Lys Gly Ala Lys Glu Val Glu Thr Lys Glu Gln Ile Ala 130 135 140
- Ala Thr Ala Ala Ile Ser Ala Gly Asp Gln Ser Ile Gly Asp Leu Ile 145 150 155 160
- Ala Glu Ala Met Asp Lys Val Gly Asn Glu Gly Val Ile Thr Val Glu 165 170 175
- Glu Ser Asn Thr Phe Gly Leu Gln Leu Glu Leu Thr Glu Gly Met Arg 180 185 190
- Phe Asp Lys Gly Tyr Ile Ser Gly Tyr Phe Val Thr Asp Pro Glu Arg
 195 200 205
- Gln Glu Ala Val Leu Glu Asp Pro Tyr Ile Leu Leu Val Ser Ser Lys 210 215 220
- Val Ser Thr Val Lys Asp Leu Leu Pro Leu Leu Glu Lys Val Ile Gly
 225 230 235 240
- Ala Gly Lys Pro Leu Leu Ile Ile Ala Glu Asp Val Glu Gly Glu Ala 245 250 255
- Leu Ser Thr Leu Val Val Asn Lys Ile Arg Gly Thr Phe Lys Ser Val 260 265 270
- Ala Val Lys Ala Pro Gly Phe Gly Asp Arg Arg Lys Ala Met Leu Gln 275 280 285
- Asp Met Ala Ile Leu Thr Gly Gly Gln Val Iie Ser Glu Glu Val Gly 290 295 300
- Leu Thr Leu Glu Asn Ala Asp Leu Ser Leu Leu Gly Lys Ala Arg Lys 305 310 315 320
- Val Val Val Thr Lys Asp Glu Thr Thr Ile Val Glu Gly Ala Gly Asp 325 330 335

Thr Asp Ala Ile Ala Gly Arg Val Ala Gln Ile Arg Gln Glu Ile Glu 340 345 350 Asn Ser Asp Ser Asp Tyr Asp Arg Glu Lys Leu Gln Glu Arg Leu Ala 355 Lys Leu Ala Gly Gly Val Ala Val Ile Lys Ala Gly Ala Ala Thr Glu 370 375 Val Glu Leu Lys Glu Arg Lys His Arg Ile Glu Asp Ala Val Arg Asn 385 395 Ala Lys Ala Ala Val Glu Glu Gly Ile Val Ala Gly Gly Val Thr 405 410 Leu Leu Gln Ala Ala Pro Thr Leu Asp Glu Leu Lys Leu Glu Gly Asp 420 425 Glu Ala Thr Gly Ala Asn Ile Val Lys Val Ala Leu Glu Ala Pro Leu 435 440 445 Lys Gln Ile Ala Phe Asn Ser Gly Leu Glu Pro Gly Val Val Ala Glu 450 455 460 Lys Val Arg Asn Leu Pro Ala Gly His Gly Leu Asn Ala Gln Thr Gly 465 470 475 Val Tyr Glu Asp Leu Leu Ala Ala Gly Val Ala Asp Pro Val Lys Val 485 490 Thr Arg Ser Ala Leu Gln Asn Ala Ala Ser Ile Ala Gly Leu Phe Leu 500 505 510 Thr Thr Glu Ala Val Val Ala Asp Lys Pro Glu Lys Glu Lys Ala Ser 515 520 525 Val Pro Gly Gly Gly Asp Met Gly Gly Met Asp Phe 530 535

540

<210> 7

<211> 573

<212> PRT

<213> Rat

<400> 7

Met Leu Arg Leu Pro Thr Val Leu Arg Gln Met Arg Pro Val Ser Arg 1 10

Ala	Leu	Ala	Pro 20	His	Leu	Thr	Arg	Ala 25	Tyr	Ala	Lys	Asp	Val 30	Lys	Phe
Gly	Ala	Asp 35	Ala	Arg	Ala	Leu	Met 40	Leu	Gln	Gly	Val	Asp 45	Leu	Leu	Ala

- Asp Ala Val Ala Val Thr Met Gly Pro Lys Gly Arg Thr Val Ile Ile 50 55 60
- Glu Gln Ser Trp Gly Ser Pro Lys Val Thr Lys Asp Gly Val Thr Val 65 70 75 80
- Ala Lys Ser Ile Asp Leu Lys Asp Lys Tyr Lys Asn Ile Gly Ala Lys 85 90 95
- Leu Val Gln Asp Val Ala Asn Asn Thr Asn Glu Glu Ala Gly Asp Gly
 100 105 110
- Thr Thr Ala Thr Val Leu Ala Arg Ser Ile Ala Lys Glu Gly Phe
 115 120 125
- Glu Lys Ile Ser Lys Gly Ala Asn Pro Val Glu Ile Arg Arg Gly Val 130 135 140
- Met Leu Ala Val Asp Ala Val Ile Ala Glu Leu Lys Lys Gln Ser Lys 145 150 155 160
- Pro Val Thr Thr Pro Glu Glu Ile Ala Gln Val Ala Thr Ile Ser Ala 165 170 175
- Asn Gly Asp Lys Asp Ile Gly Asn Ile Ile Ser Asp Ala Met Lys Lys 180 185 190
- Val Gly Arg Lys Gly Val Ile Thr Val Lys Asp Gly Lys Thr Leu Asn 195 200 205
- Asp Glu Leu Glu Ile Ile Glu Gly Met Lys Phe Asp Arg Gly Tyr Ile 210 215 220
- Ser Pro Tyr Phe Ile Asn Thr Ser Lys Gly Gln Lys Cys Glu Phe Gln 225 230 235 240
- Asp Ala Tyr Val Leu Leu Ser Glu Lys Lys Ile Ser Ser Val Gln Ser 245 250 255
- Ile Val Pro Ala Leu Glu Ile Ala Asn Ala His Arg Lys Pro Leu Val 260 265 270

290

Ile Ile Ala Glu Asp Val Asp Gly Glu Ala Leu Ser Thr Leu Val Leu 275 280 285

Asn Arg Leu Lys Val Gly Leu Gln Val Val Ala Val Lys Ala Pro Gly

300

Phe Gly Asp Asn Arg Lys Asn Gln Leu Lys Asp Met Ala Ile Ala Thr 305 310 315 320

295

- Gly Gly Ala Val Phe Gly Glu Glu Gly Leu Asn Leu Asn Leu Glu Asp 325 330 335
- Val Gln Ala His Asp Leu Gly Lys Val Gly Glu Val Ile Val Thr Lys 340 345 350
- Asp Asp Ala Met Leu Leu Lys Gly Lys Gly Asp Lys Ala His Ile Glu 355 360 365
- Lys Arg Ile Gln Glu Ile Thr Glu Gln Leu Asp Ile Thr Thr Ser Glu 370 375 380
- Tyr Glu Lys Glu Lys Leu Asn Glu Arg Leu Ala Lys Leu Ser Asp Gly 385 390 395 400
- Val Ala Val Leu Lys Val Gly Gly Thr Ser Asp Val Glu Val Asn Glu
 405 410 415
- Lys Lys Asp Arg Val Thr Asp Ala Leu Asn Ala Thr Arg Ala Ala Val 420 425 430
- Glu Glu Gly Ile Val Leu Gly Gly Gly Cys Ala Leu Leu Arg Cys Ile 435 440 445
- Pro Ala Leu Asp Ser Leu Lys Pro Ala Asn Glu Asp Gln Lys Ile Gly 450 455 460
- Ile Glu Ile Ile Lys Arg Ala Leu Lys Ile Pro Ala Met Thr Ile Ala 465 470 475 480
- Lys Asn Ala Gly Val Glu Gly Ser Leu Ile Val Glu Lys Ile Leu Gln 485 490 495
- Ser Ser Ser Glu Val Gly Tyr Asp Ala Met Leu Gly Asp Phe Val Asn 500 505 510
- Met Val Glu Lys Gly Ile Ile Asp Pro Thr Lys Val Val Arg Thr Ala 515 520 525

Leu Leu Asp Ala Ala Gly Val Ala Pro Leu Leu Thr Thr Ala Glu Ala 530 535 540

Val Val Thr Glu Ile Pro Lys Glu Glu Lys Asp Pro Gly Met Gly Ala 545 550 555 560

Met Gly Gly Met Gly Gly Met Gly Gly Met Phe 565 570

<210> 8

<211> 573

<212> PRT

<213> human

<400> 8

Met Leu Arg Leu Pro Thr Val Phe Arg Gln Met Arg Pro Val Ser Arg

1 5 10 15

Val Leu Ala Pro His Leu Thr Arg Ala Tyr Ala Lys Asp Val Lys Phe 20 25 30

Gly Ala Asp Ala Arg Ala Leu Met Leu Gln Gly Val Asp Leu Leu Ala 35 40 45

Asp Ala Val Ala Val Thr Met Gly Pro Lys Gly Arg Thr Val Ile Ile 50 55 60

Glu Gln Ser Trp Gly Ser Pro Lys Val Thr Lys Asp Gly Val Thr Val 65 70 75 80

Ala Lys Ser Ile Asp Leu Lys Asp Lys Tyr Lys Asn Ile Gly Ala Lys 85 90 95

Leu Val Gln Asp Val Ala Asn Asn Thr Asn Glu Glu Ala Gly Asp Gly
100 105 110

Thr Thr Ala Thr Val Leu Ala Arg Ser Ile Ala Lys Glu Gly Phe
115 120 125

Glu Lys Ile Ser Lys Gly Ala Asn Pro Val Glu Ile Arg Arg Gly Val 130 135 140

Met Leu Ala Val Asp Ala Val Ile Ala Glu Leu Lys Lys Gln Ser Lys 145 150 155 160

Pro Val Thr Thr Pro Glu Glu Ile Ala Gln Val Ala Thr Ile Ser Ala

,				•										* 6	
				165			•		170					175	
Asn	Gly	Asp	Lys 180	Glu	Ile	Gly	Asn	Ile 185	Ile	Ser	Asp	Ala	Met 190	Lys	Lys
Val	Gly	Arg 195	Lys	Gly	Val	Ile	Thr 200	Val	Lys	Asp	Gly	Lys 205	Thr	Leu	Asn
Asp	Glu 210	Leu	Glu	Ile	Ile	Glu 215	Gly	Met	Lys	Phe	Asp 220	Arg	Gly	Tyr	Ile
Ser 225	Pro	Tyr	Phe	Ile	Asn 230	Thr	Ser 	Lys	Gly	Gln 235	Lys	Cys	Glu	Phe	Gln 240
Asp	Ala	Tyr	Val	Leu 245	Leu	Ser	Glu	Lys	Lys 250	Ile	Ser	Ser	Ile	Gln 255	Ser
Ile	Val	Pro	Ala 260	Leu	Glu	Ile	Ala	Asn 265	Ala	His	Arg	Lys	Pro 270	Leu	Val
Ile	Ile	Ala 275	Glu	Asp	Val	Asp	Gly 280	Glu	Ala	Leu	Ser	Thr 285	Leu	Val	Leu
Asn	Arg 290	Leu	Lys	Val	Gly	Leu 295	Gln	Val	Val	Ala	Val 300	Lys	Ala	Pro	Gly
Phe 305	Gly	Asp	Asn	Arg	Lys 310	Asn	Gln	Leu	Lys	Asp 315	Met	Ala	Ile	Ala	Thr 320

Gly Gly Ala Val Phe Gly Glu Glu Gly Leu Thr Leu Asn Leu Glu Asp 325 330 335

Val Gln Pro His Asp Leu Gly Lys Val Gly Glu Val Ile Val Thr Lys 340 345 350

Asp Asp Ala Met Leu Leu Lys Gly Lys Gly Asp Lys Ala Gln Ile Glu 355 360 365

Lys Arg Ile Gln Glu Ile Ile Glu Gln Leu Asp Val Thr Thr Ser Glu 370 380

Tyr Glu Lys Glu Lys Leu Asn Glu Arg Leu Ala Lys Leu Ser Asp Gly 385 390 395 400

Val Ala Val Leu Lys Val Gly Gly Thr Ser Asp Val Glu Val Asn Glu 405 410 415

Lys Lys Asp Arg Val Thr Asp Ala Leu Asn Ala Thr Arg Ala Ala Val

- Glu Glu Gly Ile Val Leu Gly Gly Gly Cys Ala Leu Leu Arg Cys Ile 435 440 445
- Pro Ala Leu Asp Ser Leu Thr Pro Ala Asn Glu Asp Gln Lys Ile Gly
 450 455 460
- Ile Glu Ile Ile Lys Arg Thr Leu Lys Ile Pro Ala Met Thr Ile Ala 465 470 475 480
- Lys Asn Ala Gly Val Glu Gly Ser Leu Ile Val Glu Lys Ile Met Gln 485 490 495
- Ser Ser Ser Glu Val Gly Tyr Asp Ala Met Ala Gly Asp Phe Val Asn 500 505 510
- Met Val Glu Lys Gly Ile Ile Asp Pro Thr Lys Val Val Arg Thr Ala 515 520 525
- Leu Leu Asp Ala Ala Gly Val Ala Ser Leu Leu Thr Thr Ala Glu Ala 530 535 540
- Val Val Thr Glu Ile Pro Lys Glu Glu Lys Asp Pro Gly Met Gly Ala 545 550 555 560
- Met Gly Gly Met Gly Gly Met Gly Gly Met Phe 565 570